

What is claimed is:

1. A suture having a structure comprising:
a plurality of flexible filaments loosely woven together in a tubular
geometry comprising an outer wall which defines an internal lumen;
wherein when a first portion of said suture is placed under compression, the
5 outer wall of said first portion is radially expanded, such that a diameter of said first
portion internal lumen increases in size sufficiently so that a second portion of said
suture structure, which is not under compression, may be accommodated within
said first portion lumen;
such that when said suture first portion is subsequently placed under
10 tension, while said suture second portion is disposed within the first portion lumen,
the diameter of the first portion lumen decreases sufficiently to capture said suture
second portion therein to create a binding interface between the first and second
suture portions, thereby locking said second suture portion in axial position within
the lumen of said first suture portion.
2. The suture as recited in claim 1, wherein said first portion may
comprise any portion of a length of said suture.
3. The suture as recited in claim 2, wherein the weave of said outer
wall is sufficiently loose that said second suture portion may be inserted into said
lumen therethrough, between filaments forming said wall.
4. The suture as recited in claim 1, where an end of a length of said
suture comprises a tool adapted to facilitate insertion of said suture end into said
suture first portion.
5. The suture as recited in claim 4, wherein said tool comprises a

needle.

6. The suture as recited in claim 4, wherein said tool comprises a hook.

7. The suture as recited in claim 1, wherein an interior portion thereof includes a component for aiding insertion and navigation of an end of said suture through the outer wall and the internal lumen of said suture first portion.

8. The suture as recited in claim 7, wherein said component is adapted to receive said suture end to thereby facilitate insertion of said suture end through said outer wall weave.

9. The suture as recited in claim 8, wherein said suture end comprises a tool for aiding insertion of said end through said outer wall weave, said tool being adapted for engagement with said component.

10. The suture as recited in claim 9, wherein said component comprises an appendage which extends through said outer wall weave for engaging said tool.

11. The suture as recited in claim 10, wherein said appendage comprises a hook for grasping a portion of said tool.

12. A single-tailed suture for securing a plurality of body components together, comprising:

a length of braided suturing material having a distal portion and a proximal portion, and comprising a braided outer wall which defines an internal lumen,

5 wherein said braided suturing material extends through one of said body components;

a distal end of said braided suturing material extending through the outer

wall of said proximal portion so that a predetermined length of said distal suture portion being disposed within the lumen of a predetermined length of said proximal suture portion, said predetermined length of said proximal suture portion being in tension to create a binding interface between the predetermined length of said distal suture portion and the predetermined length of said proximal suture portion to create a suture loop.

13. The single-tailed suture as recited in claim 12, wherein said distal suture end comprises a fid for assisting entry of said distal suture end into the lumen of said proximal suture portion.

14. The single-tailed suture as recited in claim 12, and further comprising structure extendable from said proximal suture portion for aiding insertion and navigation of said suture distal end through the outer wall of said proximal suture portion.

15. The single-tailed suture as recited in claim 14, wherein said structure comprises an appendage which is adapted to engage a fid disposed on said suture distal end.

16. The single-tailed suture as recited in claim 12, wherein a size of said suture loop is adjustable by adjusting a location of said predetermined length of said proximal suture portion, prior to applying tension thereto.

17. The single-tailed suture as recited in claim 12, wherein said braided suturing material has a diameter D when placed in tension, without suturing material disposed in said internal lumen, and a diameter $D \times n$ when said suturing material is placed in compression, wherein n has a value of between approximately 1.5 and 15.

18. The single-tailed suture as recited in claim 17, wherein n has a value of between 2 and 4.

19. A method of suturing a plurality of body components together, using a length of braided suturing material which comprises a plurality of flexible filaments loosely woven together in a tubular geometry comprising an outer wall which defines an internal lumen, the method comprising the steps of:

5 a) inserting a distal end of said suturing material through a portion of a first one of said body components;

 b) compressing a predetermined length of a portion of said braided suturing material which is proximal to said first body component, such that an internal diameter of the lumen of said compressed suture portion increases
10 substantially in size;

 c) inserting a distal end of said length of braided suturing material through the outer wall of said compressed suture portion and into the internal lumen thereof, so that a desired length of said braided suturing material which is distal to said first body component is disposed within the internal lumen of said compressed
15 suture portion; and

 d) applying tension to said compressed suture portion to decrease the internal diameter of its lumen, to thereby create a binding interface between the compressed suture portion and the suturing material disposed in its lumen, so that a suture loop of a desired length is formed.

20. The suturing method as recited in claim 19, said method further comprising a step of moving the compressed suture portion along said length of suturing material, proximal to said first body component, until a desired suture loop is obtained, after which said tensioning step is performed.